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ABSTRACT

A naturalistic inquiry was undertaken to explore current instructional practice in three distance education settings. Perceptions of researcher, practitioner, and participants engaged in a doctoral field research study were explored, with a focus on the gap between instructional design skills and instructional strategies used by distance education instructors. The sample included one faculty instructor in the College of Agriculture and Life Sciences and two in the College of Education at Texas A&M University. Faculty behaviors, course documents, and class interactions were reviewed and compared with the literature on effective practice in distance education and on recommended strategies for faculty development to ensure excellence in the delivery of distance education. Faculty and student perceptions regarding the experience were also obtained and compared with effective practice findings and recommendations for faculty development in the literature. Translating distance learning research into effective instructional practice requires that instructors have sufficient time to become effective distance instructors, are willing to risk imperfections, and the willingness to be part of a team effort. (Contains 16 references.) (YLB)

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From Research to Practice in Distance Learning Education: Strategies for Fostering Faculty Development and Improving Instructional Practice

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This paper introduces to the need for effective strategies for faculty development within distance education contexts. Despite major institutional initiatives, faculty participation in academic training in distance education is not yet widespread. This paper addresses this issue and explores the perceptions of researcher, practitioner and participants engaged in a doctoral field research study at Texas A&M University, with particular focus on the gap between instructional design skills and instructional strategies used by distance education instructors. *

During the '90s, at Texas A&M University, distance education became an important method for delivering instruction statewide. Several colleges and departments of Texas A&M University [TAMU] (e.g. Colleges of Education, Engineering, Medicine and Agriculture and Life Sciences) use distance education to reach wider audiences and students who were not residing or attending class on the main campus. For example, the number of TTVN courses offered at a distance by The Texas A&M University System have increased exponentially, growing from 2 courses in 1990 to more than 180 courses in 1998 (EBS, Annual Report, 1998); a development which has involved more professors teaching at a distance. Faculty and administrators have recognized in this evolving arena of educational practice, the need for a robust faculty development program to insure that faculty possess the requisite knowledge, skills and attitudes for delivery of instruction at a distance.

Texas A&M University, in its effort to support its growing distance education programs and courses, has created some important entities and initiatives to help its faculty, students, and staff. These include the Center for Distance Learning Research, the Office of Distance Education, Faculty Development Workshops in Distance Education, and a Guide of Operational Procedures for Offering Programs and Courses via Distance Education, among others. In addition, offices of distance education have been created in the Colleges of Education, Engineering, Medicine, and Agricultural and Life Sciences, to provide faculty support and technical assistance.

Despite these major institutional initiatives, faculty participation in academic training in distance education and adoption of appropriate distance learning instructional design models and instructional practices and strategies is not yet widespread. This gap in utilization of existing resources and consequently in modeling appropriate behaviors in the teaching/learning transaction by distance education faculty must be addressed for any long-term improvement in instructional practice in the distance education arena.

As part of the endeavor to explore the gap between instructional design skills and instructional strategies applied by the TAMU distance education instructors, during the fall semester of 1998 a doctoral research study was conducted (Mortera, 1999). The primary purpose of the undertaking was to document and analyze the current instructional design practices, strategies, and interactions employed by TAMU distance education faculty. This dissertation led to the conclusion that there existed a need for distance education faculty to participate in faculty development programs and make appropriate adaptations in their instructional behavior in the distance education setting. This paper addresses the perceptions of researcher, practitioner and participants engaged in one of the three distance education courses that were the focus of

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the doctoral field research study. Also, it presents criteria for effective engagement in participant observation and other fieldwork tools used in qualitative research as a basis for future faculty development initiatives. Finally, it introduces the need for effective strategies for faculty development within the distance education context.

Research Background

The overriding goal of this doctoral qualitative study was two fold. First, it was designed to document and analyze the basic instructional design distance education practices and strategies used in distance learning courses at Texas A&M University. Second, it was designed to determine what fundamental instructional design skills and interaction abilities are required for distance education faculty and instructors in order to perform their instructional and teaching responsibilities successfully.

The sample of this study included three TAMU faculty members who were teaching distance learning courses at the College Station campus during the fall semester of 1998. The selection of the three distance learning instructors was based upon the following five criteria. First, instructors had to be teaching a course at a distance, with College Station, Texas, as the local site. Second, they had to be tenured or tenure-track faculty with previous experience in delivering courses at a distance. Third, they had to represent three different departments within the university. Fourth, they had to use varying kinds of technology for delivering instruction (e.g., videoconferencing, the Web, e-mail). Fifth, they had to use both synchronous and asynchronous forms of interaction in their courses.

The three instructors were selected from *The TAMU Office of Distance Education Directory*. They were contacted personally through a direct person-to-person interview. The intent of this sampling was to obtain meaningful and unique information from the instructors. Informed consent forms were obtained from each of the instructors and they were promised that confidentiality would be maintained at all times to insure privacy and anonymity. The three faculty instructors who constituted the sample for this study represented three departments in two colleges at TAMU: Instructor A was in the College of Agriculture and Life Sciences (COALS), and Instructors B and C were in the College of Education (COE).

This paper will focus only on one aspect of the aforementioned research undertaking: *fostering faculty development and improving instructional practice*. The findings of the qualitative research study discussed were accomplished through the application of fieldwork tools, such as: participant observation, unstructured interviews, analysis of documents (primary sources); and qualitative methods of data analysis, such as: formal content analysis and constant comparative method. These tools and methods have been developed and are widely employed in the area of qualitative research; further, they have been validated by many research studies within the disciplines of anthropology, sociology, psychology, linguistic, and pedagogy.

Researcher's Perspective

One of the premises for conducting this doctoral qualitative research study was the recognition that "[D]istance education is much more than simply using technology in a conventional classroom ... It is about the consequences of using technology on such subjects as course design and delivery, interaction and learning, management and organization" (Moore, 1996, p. 2). The current instructional practice for many institutions simply is to add distance education courses "to existing academic programs with faculty being told to teach as they have always taught" (Cyrs, 1997a, p.53). This is an inadequate instructional practice that does not allow for the full potential of faculty development in the field of distance education because it ignores the fundamental differences between traditional face-to-face instruction and distance education. Creating and teaching distance education courses implies different types of instructional design methods, models, interactions, and practices (Merrill, 1994), of which many instructors and institutions are unaware. As a consequence of this fact, there is a great need for faculty development that fosters and supports the acquisition of such knowledge, skills and attitudes.

Because instruction in distance learning is offered via media and delivered by technology, it is necessary that content and courses be designed by people with proper knowledge of instructional principles

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and skills as well as knowledge of distance delivery technology and the distance learning interaction process itself (Moore & Thompson, 1997). The doctoral study found that it is very important that distance learning instructors understand the difference between distance learning and the traditional face-to-face education settings (environments) when they are designing distance learning courses. They have to consider the objectives of the course, needs of the students, *ad hoc* activities, study guides, texts, content, and assessment strategies based on the uniqueness of the distance learning process itself. It is important to convey the principles and skills of distance education instructional design so that distance learning instructors will be adequately prepared to perform and interact well with distance learners. Therefore, the paucity of studies about instructional design practices, strategies, and interactions used by distance learning instructors indicate that there is an urgent need to study such type of instructional practices, and that the results produced by these future studies should help in the design of effective faculty development interventions.

Many research studies on distance education have paid attention to the role of students during the distance learning process (e.g., student-centered activities and students' perceptions) (Moore, 1996; Schlosser & Anderson, 1994). There has however been relatively little focus on instructional design practices and skills utilized by distance learning instructors (Thach & Murphy, 1995). There is a gap in the literature and educational research concerning the real and concrete instructional design practices, strategies, and interactions currently in use by distance learning educators, and the knowledge, skills and attitudes that they imply. Also, there is also a lack of research concerning the way that these educators enhance their own instructional design performance over time. There is a need for research that is married to practice, a goal that was accomplished during this doctoral study.

Instructor-Participant's Perspective

How does it feel to be observed by design through most, if not all, of a 45 contact hour graduate course? How might theses perceptions alter what would otherwise be happening in the classroom? What will we (the observed) gain in this transaction between the observer and the observed over time or is the benefit only one-sided? Can we work collaboratively (researcher, instructor, and participants) to insure that as the arenas of practice in distance education are more fully elaborated, they are also more securely coupled to concrete gains in the classroom, both for teacher and for participant? These are questions rarely asked by the researcher, yet critically important in understanding the dynamic of what is being observed. The bottom line is that the presence of an observer does in fact change the dynamic of the environment for teaching and learning. The challenge is to insure that the addition of this new ingredient (the researcher/observer) into the equation is integrated effectively into the adult learning environment especially in settings where new practice is being introduced (Hiemstra, 1991). The mantra must be "Moving Research to Practice"!

Follow-up interviews were conducted with course participants and reflective perspective-taking was engaged in by the researcher. The principal finding was that of a perceived isolation among the participants and the sense of an absence of a commitment among all parties to be partners in the enterprise and to do what it takes to make each distance education experience as successful venture. This finding goes well beyond the initial question posed; namely, what is the experience of being observed over time really like? Highlights of these impressions along with recommendations will be shared during the session and compared with the current knowledge base, conventional wisdom, and recommendations for practice.

Qualitative Fieldwork Tools and Faculty Development

The following section will describe the criteria recommended in the literature in the use of participant observation, in-depth interviews, and analysis of meaningful documents as qualitative tools for faculty development.

Since one of the purposes of the study was to determine and analyze the instructional design models, interactions, and practices used in the field by selected TAMU faculty in distance learning courses, this study was primarily descriptive and narrative in nature. As a qualitative study, it shared the essential

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characteristics of qualitative research, "the goal of eliciting understanding and meaning, the researcher as primary instrument of data collection and analysis, the use of fieldwork, and inductive orientation to analysis, and findings that are richly descriptive" (Merriam, 1998, p. 11). Merriam (1998) comments that basic or generic qualitative study is probably the most common form of qualitative research in education, and involves the researcher "seek [*ing*] to discover and understand a phenomenon, a process, or the perspective and worldviews of the people involved" (p. 11). She also adds that: "Data are collected through interviews, observations, or document analysis. Findings are a mix of description and analysis - an analysis that uses concepts from the theoretical framework of the study. The analysis usually results in the identification of recurring patterns (in the form of categories, factors, variables, and themes) that cut through the data or in the delineation of a process" (Merriam, 1998, p. 11).

There is a wealth of information available from educators and social science investigators for performing qualitative research using fieldwork techniques and tools for data collection, such as participant observation, in-depth interviews (structured and unstructured), questionnaires, collecting meaningful documents, and so on. These same techniques and tools are highly valuable for outlining effective strategies for faculty development within the distance education context (Denzin & Lincoln, 1994).

Basic criteria for developing qualitative studies exist that identify a number of necessary steps in conducting such research. These steps include (See table 1):

Table 1
Criteria for Developing Qualitative Studies

1) Determining a focus for the inquiry,
2) Establishing the fit of the paradigm of the focus,
3) Fitting the inquiry paradigm to the substantive theory,
4) Determining where and from whom data will be collected,
5) Selecting successive phases of the inquiry,
6) Using human instrumentation (participant observation, in-depth interviews, etc.),
7) Collecting and recording data,
8) Analyzing data,
9) Planning the logistics,
10) Designing for trustworthiness (Lincoln & Guba, 1985).

These steps guide the researcher in the use and implementation of fieldwork tools. Qualitative methods are used for the data analysis of interview and participant observation notes, non-verbal cues, and course documents. The most important methods of analysis in qualitative research are the formal content analysis (Lincoln & Guba, 1985), the constant comparative method (Glaser & Strauss, 1967), and the construction of trustworthiness (Lincoln & Guba, 1985). Once research is underway, findings from these kinds of analyses widen the interview process and determine the selection of subsequent data. Data analysis also may include a reflexive journal, peer debriefing, and triangulation. These instruments allow a high level of validity; they further assist in the design of faculty development strategies, because they offer copious information from concrete practice in the real world. They offer much in the process of constructing effective faculty development programs.

Faculty Development in Distance Education

As more and more faculty are teaching via distance, their needs for education and assistance will be met through faculty development programs designed to improve their instructional practices and strategies. In this way, "institutional assistance can be adapted as technologies change and faculty experiences are shared throughout different departments" (Schauer, Rockwell, Fritz, & Marx, 1998, p. 328).

A study conducted by Schauer, et al. (1998), on faculty and staff development in distance education, found that "faculty feel it is most important to obtain further education about, assistance with or

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support for: a) developing interaction, b) developing instructional materials, and c) applying selected technologies. They also feel it is very important to have assistance with 'marketing a course' " (p. 322).

From a faculty development perspective Schauer, et al. (1998), also, suggest several key points to be addressed by instructors when they are preparing course to be delivered at a distance, such key-elements include (see Table 2):

Table 2

Key Points to be Addressed for Effective Delivery of Distance Education Courses

1. Marketing courses,
2. Designing and improving the curriculum,
3. Creating interactive learning experiences,
4. Providing assistant help,
5. Instructing in technical processes,
6. Instituting peer support,
7. Providing workload adjustments,
8. Assisting with logistics related to student services,
9. Easing logistic in managing overall policies.

In this sense, any faculty development program for distance education must have in mind that "teachers no longer can simply teach top down and one way. The tremendous flow and variety of information reaching children and adults today will force the teacher to become and intelligent screening agent, a facilitator and promoter, and a key to unraveling facts and insights for the learner from an explosion of information" (Sharma, 1997, p.3).

Sharma (1997) states in a very clear way that "Various strategies need to be developed to make teacher training a continuous rather than a one-shot approach. The use of open learning systems to supplement conventional training systems is to be encouraged. These offer a multi-modal approach that allows for the production of more teachers, and for the strengthening of different programs and delivery systems. Conventional training is constrained by its high costs, its need for physical infrastructures and full-time trainers and student-teachers. These inadequacies can be supplemented by distance education and non-formal education techniques [*and opportunities*]" (p.9). To resolve these inadequacies there are several faculty development opportunities that could be initiated to enhance instructional practices within the context of distance education, such as (see Table 3):

Table 3

Faculty Development Opportunities to Enhance Distance Education Instructional Practices

- Training workshops
- Assistance/training in development of study material
- In-service (teacher) training
- Study leave, visits, work in similar institutions
- Professional assistance
- Conferences and seminars
- Training in new technology
- Self-education opportunities

Source: Parer, Croker, & Show, 1988.

Parer, et al., (1988) observe two main forms of faculty development in distance education: "Firstly, the *practitioner-centered form* focused on opportunities for development through such activities as discussion, seminars, workshops, visits, study leave and self-education. The second form emphasized the importance of *professional assistance in training*, especially of new staff, but also in relation to the development of

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study materials, teaching skills and new technology. Time [*is*] frequently mentioned as essential for staff development (p. 41).

The following section discusses the need for effective strategies for faculty development within the context of distance education.

Translating Distance Learning Research into Effective Instructional Practice

The path toward excellence in instructional practice in distance learning venues calls for a full partnership of all stakeholders: researchers, administrators, instructors, learners, technical and instructional specialists, and support personnel. For all involved, a paradigm shift seems to be the order of the day.

From the perspective of the researcher, it obviously requires a skill in gathering, analyzing, and reporting data and a full awareness of the dynamics of the human dimension of the enterprise. From the perspective of the administrator, it demands that old solutions are put away to managing the traditional instructional challenges and new ways are explored. From the perspective of the instructor, it calls for a focus upon one's philosophic orientation and a full understanding of one's current assets and limitations in the traditional classroom setting as well as a recognition of the adaptations that are imperative for success in a distance education environment. From the perspective of the learners, it requires building new strategies for learning, and perhaps more importantly, giving up the belief and its attendant assumptions, that learning can occur only in face to face traditional encounters between instructors and learners. For technical and instructional specialists, it calls for being where the instructors and learners are and facilitating the process within the worlds created by their unique interactions. It requires that they hold their favorite procedures and technologies until such time as there is a readiness on the part of the instructor and learners. For support personnel, it requires a willingness to undertake new approaches to sustain the distance education program as a central commitment of the organization rather than a peripheral fad that hopefully will vanish in thin air.

Specifically, for faculty, transformation into an effective instructor of distance education requires time! Time is needed for: guided reflection about current practice, learning new technologies, understanding learner needs and expectations, incrementally exploring new instructional strategies, reviewing current plans, and supplementing them with alternative plans should the technology fail—and it will. In addition, this transformation requires a willingness to risk, to deal with less than perfection and new worlds are conquered—if that was the goal toward which he or she aspired in the traditional classroom setting. It further calls for a willingness to become a member of a team in order to orchestrate effective instruction over time; actors are critical to the success of each and every distance education experience.

Summary

A naturalistic inquiry dissertation was undertaken to explore current instructional practice in three distance education settings. Faculty behaviors, course documents, and class interactions were reviewed. These were then compared with the literature on effective practice in distance education and on recommended strategies for faculty development to insure excellence in the delivery of distance education. Faculty and student perceptions regarding the experience were also obtained. These were compared with effective practice findings and recommendations for faculty development in the literature.

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